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<110> Reiter, Robert E.
Witte, Owen N.
Saffran, Douglas C.

<120> PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF

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<141> 1999-07-20

<150> 08/814,279

<151> 1997-03-10

<150> 60/071,141

<151> 1998-01-12

<150> 60/074,675

<151> 1998-02-13

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<170> PatentIn Ver. 2.0

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<211> 998
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gcctgcaggt ggagaactgc acccagctgg gggagcagtg ctggaccgcg cgcacccgcg 180
cagttggcct cctgaccgtc atcagcaaag gctgcagctt gaactgctg gatgactcac 240
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Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
 20 25 30

Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
 35 40 45

Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
 50 55 60

Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
 65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly
 85 90 95

Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
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Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu
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<213> MURINE PSCA (mPSCA)

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 aagccaccca ccaccctggg gctgctgacc gtgctctgca gcctgttgct gtggggctcc 360
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<213> MURINE PSCA (mPSCA)

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Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn
20 25 30

Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys
35 40 45

Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys
50 55 60

Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly
65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly
85 90 95

Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu
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Cys Ser Leu Leu Leu Trp Gly Ser Ser Arg Leu
115 120

<210> 5

<211> 131

<212> PRT

<213> HUMAN STEM CELL ANTIGEN (hSCA-2)

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20 25 30

Leu Tyr Cys Leu Lys Pro Thr Ile Cys Ser Asp Gln Asp Asn Tyr Cys
35 40 45

Val Thr Val Ser Ala Ser Ala Gly Ile Gly Asn Leu Val Thr Phe Gly
50 55 60

His Ser Leu Ser Lys Thr Cys Ser Pro Ala Cys Pro Ile Pro Glu Gly
65 70 75 80

Val Asn Val Gly Val Ala Ser Met Gly Ile Ser Cys Cys Gln Ser Phe
85 90 95

Leu Cys Asn Phe Ser Ala Ala Asp Gly Gly Leu Arg Ala Ser Val Thr

100

105

110

Leu Leu Gly Ala Gly Leu Leu Leu Ser Leu Leu Pro Ala Leu Leu Arg
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Phe Gly Pro
 130

<210> 6
 <211> 123
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Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
 20 25 30

Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
 35 40 45

Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
 50 55 60

Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
 65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly
 85 90 95

Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
 100 105 110

Leu Gly Leu Leu Leu Trp Gly Pro Gly Gln Leu
 115 120

<210> 7
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 1 5 10 15

Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn
20 25 30

Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys
35 40 45

Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys
50 55 60

Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly
65 70 75 80

Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly
85 90 95

Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu
100 105 110

Cys Ser Leu Leu Leu Trp Gly Ser Ser Arg Leu
115 120

<210> 8
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<213> Artificial Sequence

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<213> Artificial Sequence

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<210> 10
<211> 408
<212> DNA

<213> SCID Mice

<400> 10

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aacattaaag actactatat aactgggtg aatcagaggc ctgaccaggc cctggagtgg 180
attggatgga ttgatcctga gaatggtgac actgaatttg tcccgaagtt ccagggcaag 240
gccactatga ctgcagacat tttctccaac acagcctacc tgcacctcag cagcctgaca 300
tctgaagaca ctgccgtcta ttactgtaaa acgggggggtt tctggggcca agggactctg 360
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<210> 11

<211> 136

<212> PRT

<213> SCID Mice

<400> 11

Cys Phe Phe Leu Met Ala Val Val Ile Gly Val Asn Ser Glu Val Gln
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Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Ser Gly Ala Ser Val Lys
20 25 30

Leu Ser Cys Thr Ala Ser Gly Phe Asn Ile Lys Asp Tyr Tyr Ile His
35 40 45

Trp Val Asn Gln Arg Pro Asp Gln Gly Leu Glu Trp Ile Gly Trp Ile
50 55 60

Asp Pro Glu Asn Gly Asp Thr Glu Phe Val Pro Lys Phe Gln Gly Lys
65 70 75 80

Ala Thr Met Thr Ala Asp Ile Phe Ser Asn Thr Ala Tyr Leu His Leu
85 90 95

Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys Lys Thr Gly
100 105 110

Gly Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr
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Thr Pro Pro Ser Val Tyr Pro Leu
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<210> 12

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<212> DNA

<213> SCID Mice

<400> 12

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agctactgga tgcactgggt gaagcagagg cctggacaag gccttgagtg gattggaaat 180
attgaccctg gtagtgggta cactaactac gctgagaacc tcaagaccaa ggccacactg 240
actgtagaca catcctccag cacagcctac atgcagctca gcagcctgac atctgaggac 300
tctgcagtct attactgtac aagccgatct actatgatta cgacgggatt tgcttactgg 360
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<210> 13

<211> 142

<212> PRT

<213> SCID Mice

<400> 13

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      20             25             30

Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr Trp Met His Trp Val Lys
      35             40             45

Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Asn Ile Asp Pro Gly
      50             55             60

Ser Gly Tyr Thr Asn Tyr Ala Glu Asn Leu Lys Thr Lys Ala Thr Leu
  65             70             75             80

Thr Val Asp Thr Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu
      85             90             95

Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Thr Ser Arg Ser Thr Met
      100            105            110

Ile Thr Thr Gly Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
      115            120            125

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<213> SCID Mice

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tgtgtagcct ctggatttac ttccagtaat tactggatga ctgggtccg ccagtctcca 180
gagaaggggc ttgagtgggt tgctgaaatt cgattgagat ctgaaaatta tgcaacacat 240
tatgcggagt ctgtgaaagg gaaattcacc atctcaagag atgattccag aagtcgtctc 300
tacctgcaaa tgaacaactt aagacctgaa gacagtggaa tttattactg tacagatggg 360
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ccccatctg tctatccact ggcccccttgt gta 453

<210> 15
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<212> PRT
<213> SCID Mice

<400> 15

Asn Asp Phe Gly Leu Ser Trp Val Phe Ile Ile Val Leu Leu Lys Gly
1 5 10 15

Val Arg Ser Glu Val Arg Leu Glu Glu Ser Gly Gly Gly Trp Val Gln
20 25 30

Pro Gly Gly Ser Met Lys Leu Ser Cys Val Ala Ser Gly Phe Thr Phe
35 40 45

Ser Asn Tyr Trp Met Thr Trp Val Arg Gln Ser Pro Glu Lys Gly Leu
50 55 60

B2
Glu Trp Val Ala Glu Ile Arg Leu Arg Ser Glu Asn Tyr Ala Thr His
65 70 75 80

Tyr Ala Glu Ser Val Lys Gly Lys Phe Thr Ile Ser Arg Asp Asp Ser
85 90 95

Arg Ser Arg Leu Tyr Leu Gln Met Asn Asn Leu Arg Pro Glu Asp Ser
100 105 110

Gly Ile Tyr Tyr Cys Thr Asp Gly Leu Gly Arg Pro Asn Trp Gly Gln
115 120 125

Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr Thr Pro Pro Ser Val
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Tyr Pro Leu Ala Pro Cys Val
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<210> 16
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<212> PRT
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<211> 12
<212> PRT
<213> Artificial Sequence

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<210> 18
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<212> PRT
<213> Artificial Sequence

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<213> Artificial Sequence

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<210> 22
<211> 32
<212> DNA
<213> Artificial Sequence

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<212> DNA
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~~30~~

By

<210> 24
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<212> DNA
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<223> Description of Artificial Sequence: RT-PCR PRIMER

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26

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<223> c or t

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<222> (33)
<223> g or t

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